

**Amendments to the Claims**

1. *(Currently Amended)* A method of generating an adaptative slicer threshold from a received demodulated signal, the method comprising the steps of:

- detecting ~~(in 70)~~ a maximum value of the signal over a predetermined period, for at least two periods, and

- detecting ~~(in 72)~~ a minimum value of the signal over a predetermined period, for at least two periods,

wherein the method comprises the steps of:

- averaging ~~(in 86)~~ several detected maximum values and averaging several detected minimum values, and

- calculating ~~(in 86)~~ the slicer threshold from these average minimum and maximum values.

2. *(Original)* The method according to claim 1, wherein the averages of the maximum and minimum values are calculated using a running average over the n last successive detected maximum or minimum values, n being a predetermined integer greater than 1.

3. *(Original)* The method according to claim 2, wherein n ranges from 2 to 6.

4. *(Original)* The method according to claim 3, wherein n is equal to 4.

5. *(Currently Amended)* The method according to ~~any one of the previous claims~~ claim 1, wherein the step ~~(70)~~ of detecting a maximum value comprises the operations of :

- detecting a maximum peak of the signal during the predetermined period, the maximum signal peak corresponding to a point where the signal first-order derivative is zero and the signal second-order derivative has a negative value, and

- holding the value of the detected maximum peak as the maximum value over the predetermined period.

6. *(Currently Amended)* The method according to ~~any one of the previous claims~~ claim 1, wherein the step ~~(72)~~ of determining the minimum value comprises the operations of:

- detecting a minimum peak of the signal during the predetermined period, the minimum signal peak corresponding to a point where the signal first-order derivative is zero and where the signal second-order derivative has a positive value, and

- holding the value of the detected minimum peak as the minimum value over the predetermined period.

7. *(Currently Amended)* The method according to ~~claims 5 and 6~~claim 5, wherein a new detected maximum value is used to calculate the average maximum value only if a minimum peak has been detected during the previous predetermined period, and a new detected minimum value is used to calculate the average minimum value only if a maximum peak has been detected during the previous predetermined period.

8. *(Currently Amended)* A system for generating an adaptative slicer threshold from a received demodulated signal, the system comprising:

- a first detector ~~(20)~~ to detect a maximum value of the signal over a predetermined period, for at least two periods, and

- a second detector ~~(22)~~ for detecting a minimum value of the signal over a predetermined period, for at least two periods,

wherein the system comprises an averaging unit ~~(28)~~ to average several detected maximum values and to average several minimum detected values, and to calculate the slicer threshold from these average minimum and maximum values.

9. *(Currently Amended)* The system according to claim 8, wherein it further comprises at least one FIFO ~~(First In First Out)~~ memory ~~(24, 26)~~ to store said several maximum values and said several minimum values to be averaged.

10. *(Currently Amended)* The system according to ~~claim 8 or 9~~claim 8, wherein the first and/or second detectors ~~(20, 22)~~ are a maximum peak detector and a minimum peak detector, respectively.

11. *(Currently Amended)* The system according to ~~any one of claims 8 to 10~~claim 8, wherein the system comprises a bit level detector ~~(36)~~ associated with said at least one memory ~~(24, 26)~~ in order to activate the storage of a new minimum or maximum value only if a bit level change has been detected.

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